

What is claimed is:

1. A next process-determining method comprising the steps of:

- 5 digitizing a sample object into sample data
 formed by digital data;
 compressing the sample data into compressed
 sample data according to a predetermined data format;
 calculating a difference data amount between a
10 data amount of the compressed sample data and a data
 amount of reference data formed by digitizing and
 compressing a reference sample object in the same
 manner as the sample object is processed;
 identifying which of a plurality of predetermined
15 numerical ranges the difference data amount belongs to;
 and
 determining a predetermined process associated
 with the identified numerical range in advance as a
 next process to be carried out next.

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2. A next process-determining method according to
claim 1, wherein the sample data is compressed into the
compressed sample data according to the predetermined
data format by using a data-compressing method therefor
25 which is capable of compressing an amount of data at a
 higher rate as digital data of an identical kind occurs
 more continuously, or as the digital data has a higher
 regularity.

- 30 3. A next process-determining method according to
claim 1 or 2, wherein the sample data is formed by
image data obtained by picking up an image of the
sample object, the digital data being composed of data

of pixels formed in picking up the image of the sample object.

4. A next process-determining method according to
5 claim 3, wherein the reference sample object is changed with a lapse of time.

5. A next process-determining method according to
10 claim 4, wherein the compressed sample data which is formed based on an image of the sample object picked up on an immediately preceding occasion is sequentially changed to the reference data.

6. An inspecting method that picks up an image of an
15 object to be inspected, digitizes the picked-up image to image data formed of pixel data, and determines a next process based on the image data to execute the next process,

the inspecting method comprising the steps of:
20 compressing the image data into compressed image data according to a predetermined data format in which an amount of data can be compressed at a higher rate as the pixel data of an identical kind occurs more continuously, or as the pixel data has a higher
25 regularity;

calculating a difference data amount between a data amount of the compressed image data and a data amount of reference data formed by digitizing and compressing a reference picked-up image in the same
30 manner as the image of the object to be inspected is processed;

identifying which of a plurality of predetermined numerical ranges the difference data amount belongs to;

and

- determining a predetermined process associated with the identified numerical range in advance as a next process to be carried out next, and then carrying out the predetermined process.

7. An inspecting apparatus comprising:

- a data-processing section for compressing image data which is obtained by picking up an image of an object to be inspected and digitizing the picked-up image, according to a predetermined data format in which an amount of data can be compressed at a higher rate as pixel data of an identical kind occurs more continuously in the image data or as the pixel data in the image data has a higher regularity;

- a storage section for storing a plurality of numerical ranges which are associated in advance with predetermined processes, respectively, and a data amount of reference data formed by digitizing and compressing a reference picked-up image in the same manner as the image of the object to be inspected is processed;

- a calculating section for calculating a difference data amount between a data amount of the image data compressed by said data-processing section and the data amount of the reference data stored in said storage section; and

- a control section for identifying which of the plurality of numerical ranges stored in said storage section the difference data amount calculated by said calculating section belongs to, and carrying out the predetermined process associated with the identified

numerical range as a next process to be carried out
next.

1000417,022002